



# Bronze, Jade, Gold, and Ivory: Valuable Objects in Ancient Sichuan

## Citation

Flad, Rowan. 2012. Bronze, Jade, Gold, and Ivory: Valuable Objects in Ancient Sichuan. In *The Construction of Value in the Ancient World*, ed. John K. Papadopoulos and Gary Urton, 306-335. Los Angeles: Cotsen Institute of Archaeology Press.

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**Chapter 15**

**Bronze, Jade, Gold, and Ivory: Valuable Objects in Ancient Sichuan**

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## **Bronze, Jade, Gold, and Ivory: Valuable Objects in Ancient Sichuan**

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### **Abstract**

*If negotiations about value are essentially political (Graeber 2001:115), our understanding of past political systems is illuminated by an understanding of how and through what processes value is attributed to objects in a particular context. We cannot examine this “object value” through a focus on only one attribute or set of attributes, such as scarcity of raw material or labor investment, but instead must consider the intersection of several factors: raw material, labor investment, the identity of producers, the identity of consumers, the divisibility or “commodifiability” of an object, and its capacity to accumulate history. In fact, the value attributed to objects is dynamic and contingent—the consequence of practices of production, use, and discard through an object’s life history. We must therefore consider both the production of objects and their discard in our attempts to discover the relationships between object value and political power. This paper considers this relationship in ancient Sichuan, China, during the late second and early first millennia B.C. By looking at aspects of production, use, and discard of valuable objects at the sites of Sanxingdui and Jinsha, we observe changes in the ways that bronze, jade, gold, and ivory were employed as valuable objects in the context of political and ritual practices.*

### **Introduction**

The period from the late second to early first millennia B.C. was a time of impressive political developments in the Chengdu Plain of China’s Sichuan Basin. This region was long considered a political backwater that became important only after the Qin conquest in 316 B.C.—prior to the unification of China under Qin Shihuangdi, China’s first emperor. Discoveries in the past 20 years, however, have shown that Sichuan was also a center of political complexity and dynamic social change in the Late Neolithic and Early Bronze Age.

Among these discoveries was the identification of multiple Late Neolithic walled sites scattered across the Chengdu Plain (Figure 1; Wang 2006)—evidence of collective

labor mobilization paralleling developments across northern China that are associated with the development of complex societies throughout the Longshan Interaction Sphere (Chang 1986). Some of these Baodun culture (ca. 2700–1700 B.C.) walled sites may have acted as regional central places, where people gathered from smaller, scattered homesteads in their immediate vicinity. The site of Gucheng in Pi County, for example, contains a large rectangular building in the center of a 30.4-ha rectangular walled area that may have acted as a communal gathering place (Chengdu and Pi Xian 1999, 2001a, 2001b; Jiang et al. 2000). These sites are the first evidence of any degree of supercommunity social integration in the region.

One of the walled sites, called Sanxingdui, is located in Guanghan, in the northeast of the plain, and contains features that reflect further changes following the Baodun culture period (Figure 2a). In 1986 two pits containing a surprising array of “valuable objects” were accidentally discovered at the site (Sichuan 1999). These pits—called sacrificial pits K1 and K2 by the excavators—resulted from the intentional burial of pottery vessels, elephant tusks, jade artifacts, gold objects, bronze vessels, weapons, anthropomorphic heads, and a variety of other items on two separate occasions. The contents of these and similar pits can help us understand what sorts of objects were valuable to the people at Sanxingdui and how these objects were related to political practice. These discoveries also point to Sanxingdui being a principal political center in the Chengdu Plain during the era of the Sanxingdui culture (ca. 1700–1150 B.C.).<sup>1</sup> The construction of value represented by these pits and objects reflects a significant avenue through which members of Sanxingdui society established and maintained institutions of power.

The process of value construction in this context was not static or monolithic. We can observe variability in the relationship between valuable objects and political practice in the Chengdu Plain by examining chronological and spatial differences in the production, use, and disposal of valuable objects, such as those found in the Sanxingdui pits. In particular, we can juxtapose Sanxingdui and the site of Jinsha, where deposits containing bronze, jade, ivory, and gold have also been found. Jinsha is located in Chengdu City—the current capital of Sichuan Province—and comprises a cluster of archaeological loci in the western part of the city, particularly on both banks of the meandering Modi River (Figure 2b). The site dates to the Shi'erqiao period (ca. 1200–800 B.C.), which immediately postdates the Sanxingdui era.

There is some chronological overlap in the early twelfth century B.C. between the remains at Sanxingdui and Shi'erqiao culture remains in Chengdu, including those at Jinsha (Xu 2006). It seems that Sanxingdui and Jinsha represent a shift in the center of political power in the Chengdu Plain between two sites that coexisted for a short time. Consequently, the remains of objects at the two sites provide an excellent means by which we can compare the political construction of value during the formative period of civilization in Sichuan at two locations.

How do valuable objects made of bronze, jade, gold, and ivory differ between Sanxingdui and Jinsha? What does this comparison tell us about the different tastes, attitudes, and political practices at these two sites and about the nature of their political institutions? This paper seeks to address these questions by examining three aspects of the life histories of valuable objects—production, use, and final disposal.

### **The Archaeological Investigation of Object Value**

How do we assess object value in archaeological contexts? This is a principal question being explored in this section of the current volume, and it requires that we consider the concept of value more generally. As a starting point, I use the work of David Graeber (2001), who has outlined the inherent complexity of the problem.

Theories of value have been swinging back and forth between two equally unsatisfactory poles: on the one hand, a warmed-over economism that makes “value” simply the measure of individual desire; on the other, some variant of the Saussurean “meaningful difference” [Graeber 2001:46].

Accordingly, “object value” might refer to the degree to which an object is desired or to characteristics of an object that distinguish it from others. Although Graeber may have failed to move adequately beyond this dichotomy (Renfrew, this volume), in his attempt to do so he points out two important points, namely that value must be understood to be “dynamic”—not static or unchanging—and “social”—the product of a social network of individuals who “matter” to one another (Graeber 2001:77). Consequently, an examination of object value must consider: (1) the social context within which an object was used; and (2) how this social context changed over a single

object's life history and over time as various valued objects were produced, used, and discarded in different social contexts.

By understanding value generally as dynamic and socially contextual, we are forced to consider life histories when investigating regimes of value in which specific objects circulated (Appadurai 1986a; Gosden and Marshall 1999; Kopytoff 1986). Object value is inherently variable, multiple/partible, and changing, and essential value cannot be uncritically ascribed to any object without considering actions involved in the production, use, and disposal of the object (Clark 2007; Flad and Hruby 2007; Graeber 2001; Munn 1986). The "intended" or "expected" value associated with an object by its producers may be very different from the "ultimate value" associated with the same object on its deposition, and both of these "states of being" may differ from the various values associated with the object throughout its use life—and these statements hold true whether one is referring to the "measure of desire" for an object or its "meaning" in distinction from other objects.

This is not to say, however, that it is impossible to identify or discuss certain things as "valuable objects." Graeber (2001) proposes that valuable objects act as "measures of value" by their presence or absence, their positioning in a hierarchy of things, and their ability to represent difference proportionally. They likewise act as "media of value," as they are the concrete, material means by which . . . value is realized" (Graeber 2001:75). Finally, they are "seen as *ends in themselves*" (Graeber 2001:76) and consequently fetishized as embodying value itself. All these characteristics provide the means for identifying culturally specific valuable objects in ancient contexts. Object scarcity, quantitative and qualitative relationships to other objects that are similar in form or medium, labor invested in production, qualities that make objects "singular" in their broader material context, and evidence of use as media of exchange or as objects of fetishism all provide means of evaluating the role of objects in systems of value.

Furthermore, Graeber (2001:34) calls particular attention to the "capacity to accumulate history" as a feature that endows objects with value. This capacity may be manifest in different ways. Some objects obtain value in a public arena as vital elements in communal rituals or public display. Others obtain private value as adornment or as objects associated with specific persons or events.

I believe that Graeber's observations point us toward specific sources from which objects derived their value in the past. These sources can be separated into aspects of production, use, and discard (Figure 3). Evidence for each of these sources should be

sought in archaeological and historical contexts in any attempt to understand how objects are valued and how valuable objects relate to political practices.

First, the *production* of objects often imbues them with value in a particular cultural context. The production stage of an object's life history instills initial object value through a series of mechanisms. Among these are the scarcity and inherent properties of the raw materials necessary to produce the object in question, the labor investment required to manufacture the object, the creation of similar objects with identifiable differences that comprise gradations of value, the relative size of objects, and the social identity of those involved in the production process. (See Miller 2007:212–217 for a related discussion of archaeological investigation of object value.)

Concerning raw material, factors to be considered are the difficulty of procurement, qualities of raw materials that encourage a sense of singularity or distinction in the final products, and the degree to which complicated transformations are necessary to produce a final product from the materials. Objects produced using rare or difficult-to-acquire raw materials are both highly desired and imbued with special meanings relative to other objects in the same cultural context (Helms 1993). They are therefore both “highly valued” and “specially valued.”

Labor invested in the production of objects similarly affects their value in both senses. Hypertrophic objects have been demonstrated to be highly sought after and particularly important for the reification of social status differences in many contexts (e.g., Carter 2007; Clark and Parry 1990; Malinowski 1922). Differences in labor investment in otherwise similar objects reflect decision making within the context of production that acts to distinguish certain objects from others. Measures of absolute labor investment and of the investment of particularly skilled labor can therefore be used to examine certain aspects of object value.

When objects are produced as part of a corpus of related items that comprise “gradations of value,” higher-quality raw materials and more substantial labor investment become particularly salient. Similarly, similar objects of different size may be related in a hierarchy of value. By linking objects together, such gradation provides “a fertile source of metaphors for evaluating people and their social actions” (Lesure 1999a:24). These metaphors are materialized during object production through variations in the materials used to create objects and the various qualities and sizes produced.

Moreover, object value is affected by the employment of a specific class of laborers in the production process. The social status of these laborers may directly affect

the status of products they are involved in making. For example, in Classic Maya contexts, where literacy was limited to elite individuals, the participation by elites in the production of objects with hieroglyphic inscriptions contributed to the value of the final objects (Inomata 2001). Likewise, when objects are created in a highly ritualized or politically charged context, the resulting products retain associations with this production process in the subsequent value attributed to them (e.g., Hruby 2007:83).

Secondly, object *use* plays an important role in determining associated value(s). As objects are used and perceived by those other than the producers, their values change from those initially instilled through the production process. A number of factors affect the values attributed to an object through its use life. These include the identity of those who use the object, the degree to which an object is commodifiable and/or divisible, and the capacity an object has to accumulate history.

Identifying the users/consumers of objects is often difficult. This issue can sometimes be approached by examining the various contexts within which an object or class of objects would have been employed. Other factors, including whether functional aspects of object design are salient and what functions are implied, may reflect the identity of those for whom an object was intended. Valuable objects were often used for display (Graeber 2001:chapter 4), either as individualizing ornaments used for bodily adornment or in public contexts as objects with shared significance.

Commodifiability refers to the degree to which an object can occupy a state of being wherein it can be exchanged for other objects without the creation of some form of reciprocal social relationship (Clark 2007; Flad and Hruby 2007). Objects that take on a commodity state during their use life tend to be things that are multiple or divisible as opposed to being unique, “singular,” or indivisible (cf. Appadurai 1986a). It tends to be more difficult for the latter to take on a commodity state, although they are often exchanged as parts of (broadly defined) gifting practices. The latter also more easily “accumulate history,” as their singularity encourages unique associations (see, e.g., Carter 2007).

Commodifiable, multiple, and divisible objects accumulate history more easily the farther they are from their original source in time and space. Objects that are common, multiple, and frequently commoditized in one context may become singular, highly valued objects in another. This is true of heirlooms passed down through generations, thereby fundamentally altering an object’s value over the course of its use life (Lillios



1999). In archaeological contexts, objects that are chronologically out of place and found in highly intentional deposits (such as burials) often represent such curated items.

The context of use and the identity of consumers are not limited to those responsible for the final deposition of an object. Instead, final disposal is only one stage in a process of continuous reevaluation of an object. This final stage, however, can tell us a lot about an object's life history and hence certain values associated with it. In some cases, the context of final disposal represents the use for which an object was intended; this is true for objects that were intended for burial in graves, for example. Furthermore, the giving up of objects in ritual events may provide a window on a particular process by which the value of an object is demonstrated. The intentional destruction of objects of value in competitive prestations, such as potlatches, is an example of this. Accordingly, the degree to which contexts of final disposal are public or private, and intended for recovery or not, speaks volumes about object values in the past (cf. Rissman 1988). Following final disposal, objects may be revalued in subsequent eras, by antiquarians, collectors, and archaeologists, among others, but this aspect of object life history as it pertains to value is not considered here.

Before I attempt to consider the variability of object value in ancient Sichuan through a consideration of production, use, and disposal of certain valuable objects, it is worth adding an additional caveat. As Appadurai (1986a:77) has noted, "Not all parties share the same *interests* in any specific regime of value," and any attempt to reconstruct object value in ancient contexts will inevitably be limited by the aspects of production, use, and disposal that can be identified. Therefore, our understanding of object value will necessarily be partial and incomplete.

### **The Chengdu Plain: Sanxingdui and Jinsha**

Despite little evidence for a long period of Neolithic developments in the Chengdu Plain, a regional political network seems to have emerged in the second millennium, only slightly later than the development of states in the Central Plains of the Yellow River valley of northern China. To date, however, our understanding of social organization during the second and first millennia is based on a small number of sites—two of which are particularly important: Sanxingdui and Jinsha.

#### *Sanxingdui*

The site of Sanxingdui, located in Guanghan, Sichuan, was first identified in 1929 and subsequently subjected to small-scale excavations (Graham 1933–1934). Occasional excavations at the site became more regular in the early 1980s and continue today (Sichuan et al. 1987; Xu 2006). These decades of research have revealed a massive set of walls enclosing more than 3 km<sup>2</sup> (Figure 2a). The wall seems to date to the period of the Sanxingdui culture, to which most of the remains at the site date. This period is most well known for the two sacrificial pits—K1 and K2 (Sichuan 1999; Sichuan et al. 1987, 1989).

Because many of the excavations at Sanxingdui have not been published, most discussions of Sanxingdui have focused on these two pits (e.g., Bagley 1990a, 2001; Li Boqian 1996; Li Shaoming et al. 1993; Li Xueqin 1997; von Falkenhausen 2006; Yu Weichao 1996; Zhao Dianzeng 1996; Zou Heng 1996). Both pits date to around 1200 B.C., although K1 is thought to be slightly earlier than K2 (Sichuan 1999).

K1 is rectangular and contained dozens of stone and jade items; four gold objects; 200 bronze artifacts, including weapons, vessels, rings, and anthropomorphic heads; burned animal bone and wood and bamboo ash mixed with small objects; 13 elephant tusks; cowrie shells; and 40 pottery vessels (Sichuan 1999; Xu 2001a:table 1). The artifacts were deposited in a careful, stratified sequence roughly corresponding to the order listed here (that is, with the ceramics near the top), and most had been burned before burial.

Approximately 30 m away, K2 is narrower, has straight instead of sloping walls, and lacks the entrance ramps found in K1, but K2 is approximately the same depth and similarly oriented. About 1,300 artifacts or artifact fragments were discovered in this pit, and these were deposited in three distinct layers. The lowest level included fragments of massive and intricate bronze treelike objects decorated with bronze birds, cowrie shells, (more than 4,600), and small stone and jade objects. The second stratum contained mostly bronze items, including a 2.6-m high human figure on a pedestal; more than 40 bronze human heads, 6 or more of which were covered in gold foil; 29 bronze masks, generally more fanciful than the heads; other fragmentary gold foil objects; and around 20 complete or fragmentary bronze *lei* and *zun* vessels. The uppermost level contained 67 elephant tusks and covered the bronze-containing level.

In general, the objects in K2 are more elaborate than those from K1, and there are many more types in K2 than in K1. However, lithics, bronze rings, and weapons are

quite similar in both contexts, and both pits were sealed with layers of pounded earth (*hangtu*). Some of the K2 contents were burned, and most were broken or deformed before burial. Both pits, therefore, exhibit signs of preinterment ritual destruction.

The two pits are not the only caches discovered at Sanxingdui. An elongated, rectangular pit covered by stone disks and containing other objects, including jade knives, beads, and pottery, was found at the Yueliangwan locus in 1929 and was originally identified as a burial (Graham 1933–1934). Furthermore, another sacrificial pit containing bronze plaques inlaid with turquoise and various stone and jade objects, including disks, adzes, axes, and pendants, was discovered in 1987 at the Cangbaobao locus (Sichuan and Guanghan 1998). Like those of its more elaborate cousins, the Cangbaobao pit contents exhibit signs of burning, and like the pit found in 1929, the Cangbaobao feature was lined with stone disks, indicating that the 1929 feature may have been a similar ritual pit.

The objects in these pits (particularly K2 and Cangbaobao) provide evidence of long-distance relations between Sanxingdui and other regions (So 2008; von Falkenhausen 2006), while they also reflect an important, highly localized form of ritual activity. Among the remarkable objects in these pits are bronze, gold, jade, and ivory artifacts; these media each required distinct and specialized methods of raw material acquisition and production. Although raw material and production contributed to the values attributed to bronze, gold, jade, and ivory objects at Sanxingdui, it was the way the objects were used and discarded that seems to distinguish the Sanxingdui valuables from those at Jinsha.

### *Jinsha*

Located about 5 km west of the center of modern Chengdu City, Jinsha was discovered accidentally during construction in 2001<sup>2</sup> (Figure 2b). The archaeological zone at Jinsha extends over more than 5 km<sup>2</sup> and includes more than 20 separate loci. Features unearthed at these loci include large building foundations, pits, “wells” (deep pits with bottomless pottery jars filled with pebbles), kilns, graves, and house foundations (Chengdu 2001, 2003a, 2003b, 2004b, 2004c, 2004d, 2005a, 2005b, 2006b, 2007). These are scattered in all directions around the features first discovered at the site—a series of so-called sacrificial contexts at a locus called Meiyuan (Chengdu 2004a, 2004e).

In 2001, during extension of Shufeng Huayuan Road at Meiyuan, a backhoe ripped through a pit (Jinsha K1) filled with elephant tusks and other artifacts. Nearly a decade of intensive investigation of the Meiyuan locus has followed. The initial work at Meiyuan recovered 1,417 artifacts from both the spoil heaps of the road construction and the subsequent scientific excavations (Table 1). These artifacts included 56 gold objects—mostly decorative attachments of various forms and sizes; 479 bronze objects—including weapons, bells, disks, various decorative attachments, and a small human figurine; 558 jade objects—mostly tools and weapons but also 12 *cong* tubes (tubular stone artifacts with circular cores and rectangular outer sections), 62 *bi* disks (circular disks with perforated centers), and 107 small objects such as beads and polished stones; 248 stone objects—60 of which were weapons and tools and the rest including 134 stone disks, 10 human figurines, 19 animal figurines, and 25 other objects; 57 pieces of worked bone; and 18 pottery objects.

Although most of the initial finds were not well provenienced, subsequent investigations at the site exposed an array of deposits in a 15-ha “sacrificial zone” along the bank of the Modi River. At least 60 “sacrificial contexts” seem to represent periodic rites of abandonment or dedication. Jinsha K1 is among the largest of these, while many are much smaller, consisting of only a few objects. To date, no pits on the scale of Sanxingdui K1 or K2 have been discovered at Meiyuan or elsewhere at Jinsha, despite extensive excavations.

The sacrificial contexts found at Jinsha have been divided into three phases by archaeologists working at the site (Chengdu 2005c, 2006a). The earliest contexts, dating to the transition between the Sanxingdui and Shi'erqiao cultures (and therefore more or less contemporaneous with K1 and K2 at Sanxingdui), are characterized by ivory and stone objects, along with some pottery and small numbers of jades. Among the ivory material were complete elephant tusks, more than a dozen of which were discovered in the pit (Jinsha K1) that initially brought attention to the Jinsha site in 2001. The stone objects from this phase included *zhang* blades with incised decoration, *bi* disks, and figurines of kneeling humans, tigers, and snakes. Later contexts, dating to the Shi'erqiao culture, more commonly contain bronze, jade, ivory, and gold objects. In one context alone (H6), archaeologists discovered more than 300 items, including more than 150 jades and 110 bronzes. More than 200 gold objects have been found at the site, most from contexts that date to this phase of activity.

## **Bronze, Jade, Gold, and Ivory in Pre-Qin Sichuan**

The objects found in the pits at Sanxingdui and along the Modi River at Jinsha all were significant components of regimes of value in ancient Sichuan. By investigating the different ways that object value changed over time in this area, we can illuminate changes in political relationships and strategies during a formative stage in social development in this area. We will examine bronze, jade, gold, and ivory in relation to the various factors that help us understand object value in archaeological contexts.

### *Bronze*

Bronze production in East Asia began at least as early as the beginning of the second millennium B.C. (Li Shuicheng 2005; Linduff et al. 2000). The earliest metal objects were small ornamental items, but the focus of bronze production shifted radically in the early second millennium, when the first bronze vessels were made at the site of Erlitou (Bagley 1999; Liu 2003). Bronze production involved the alloying of copper, tin, and lead and the coproduction of ceramic molds and model combinations in which the metal objects were cast (Bagley 1990b; Chase 1991; Li Yung-ti 2007). Vessels and weapons became the principal bronze object types throughout Bronze Age polities across ancient China, and bronzes were quintessential “valuable objects” that were intimately tied to the maintenance of social status by elite members of society. We see bronze vessels used in the commemoration of ancestors, from whom many of the elite obtained their privileged positions, and bronzes were used in elaborate burial practices that reified existing social hierarchies.

Societies in the Sichuan Basin were somewhat separated from the interpolity interactions that fostered similar use of bronze in many other parts of ancient China. In fact, until the discovery of the Sanxingdui pits, bronze production in the Sichuan Basin was thought to be relatively late and primarily focused on the manufacture of weapons in a particular local style (so-called Ba-Shu-style weapons; see Sichuan 1991).

The bronzes from Sanxingdui and Jinsha, however, force us to consider aspects of production, as well as use and discard, in our assessment of the value of bronze objects. Bronze production and bronze objects would have had associations with faraway places—associations that would not have easily been divorced from the values attributed to bronze. The raw material for locally produced bronzes likely came from

points to the south or southeast of the Chengdu Plain. Lead may have come from sources in the mountainous region in southern Sichuan and northern Yunnan. Tin most likely came from sources in the rich tin belt stretching from Yunnan through Guizhou to Hunan and Jiangxi.<sup>3</sup> Copper may have been won from sources in the mountainous region west of the Sichuan Basin or acquired from more distant sources, such as mines in the Middle Yangzi region (Xia and Yin 1982). In any case, the raw materials were not available in the immediate proximity of either Sanxingdui or Jinsha, and production of bronze objects therefore necessitated that those involved in the production become linked to relatively extensive networks of trade and exchange.<sup>4</sup>

The bronzes from Sanxingdui demonstrate local production on a relatively large scale. The heads, tree, masks, and especially the large human figure all required idiosyncratic skills and techniques, as well as significant amounts of copper, tin, and lead and specialist knowledge of the procedures necessary to create alloyed metal and mold-model combinations. Some bronzes were singular, distinctive, uniquely local objects, while others call attention to distant connections, and still others were relatively generic and commodifiable. This variability reflects the complexity of bronze as a medium of object value.

Some local products, such as the elaborately clothed 2.6-m tall bronze sculpture (Figure 4) and the bronze heads, were made by highly skilled artisans. The bronze heads are highly varied yet still generic in appearance. They clearly represent a number of distinct social roles. The excavators identify three distinct varieties among the 14 K1 heads, and these possessed individual variation. K2 contained at least five distinct variations of the three-dimensional heads; four distinct types of anthropomorphic masks and several fanciful monster masks were found in this pit as well. This corpus of bronze heads and masks represents a concerted, organized effort among bronze casters to produce a collection of objects that must have been commissioned by group leaders with a specific purpose or set of purposes in mind. These were almost certainly used for ritual occasions, during which the social order was instantiated and maintained. The complete bronze sculpture was the most elaborate of a vast group of similar individual personages. The producers of these objects must have been closely tied to the people or social roles the bronzes were meant to represent.

Many of the bronzes, such as the bronze trees, heads, masks, and the sculpture in K2, would have been valued for their distinctiveness. Even the many generic bronze ornaments discovered in K2 would likely have been combined with other materials to

create elaborate objects publically displayed in ritual contexts. These various ritual objects probably all represented idealized concepts—cosmologically significant in the case of the trees and other decorative objects, perhaps, and idealized social roles or positions in the case of the anthropomorphic images.

Other bronzes represented, quite explicitly, the long-distance connections that were necessary for the local production of bronzes (von Falkenhausen 2006). The 20 bronze *lei* and *zun* vessels, for example, all represent a tradition of bronze production tied to the Central Plains. These objects likely came from or drew directly upon prototypes from the Middle Yangzi River valley—hundreds of kilometers to the east and beyond high mountain ranges—one possible source of copper for metallurgists at Sanxingdui. The long-distance connections these objects represent were not trivial, as it is almost certain that the technology for bronze production itself came from generally the same places referenced by these objects.

I suspect that many of the bronzes, such as the heads, masks, trees, and ornaments, reproduced indigenous objects of value in a new, foreign medium. The majority of the heads and masks must have been mounted on some sort of perishable material, perhaps wooden posts and figures, and it is not too much of a stretch to think that earlier figures may have been made entirely of wood. The complete bronze sculpture was thus the most singular of a graded series of sculptures, with the heads being mounted on bodies constructed of perishable materials and perhaps production of another grade of sculpture that has not been preserved. This co-option of bronze for indigenous ritual purposes illustrates the value (both in terms of desirability and distinctiveness) that bronze had at Sanxingdui.

The bronze vessels were used quite differently at Sanxingdui than they would have been farther east. In the Yellow River valley or the Middle Yangzi region, bronze vessels were used for the presentation and consumption of food and liquid in ritual contexts. At Sanxingdui, some were used as containers for storing other valuable objects, including cowrie shells—another category of object acquired from distant sources (see Li 2003). One bronze *zun* (K2[2]:129), for example, contained 935 cowrie shells, and another (K2[2]:146) contained 602. Yet another vessel (a *lei* vessel numbered K2[2]:103) contained a staggering 1,233 cowries. In K1 cowries were also included in a *zun* (K1:258), as well as in one of the bronze heads (K1:6). This practice calls attention to connections to the south in Yunnan, where bronze objects similarly were used as cowrie containers, albeit much later (Xiao Minghua 2004). As Yunnan was

a possible source of lead for Sanxingdui bronze production, these ties may also have been quite significant.

Still other bronzes were more generic. The 61 bronze halberd blades discovered in the two pits were mostly of a serrated form unique to the Chengdu Plain, but they were generic and potentially commodifiable, qualitatively different from the more singular bronzes mentioned previously. Bronze collared disks/flanged bracelets<sup>5</sup> (Figure 5a) and flat “hoe-shaped” objects with square holes (Figure 5b) were also found at Sanxingdui, as well as at Jinsha. In total, the Sanxingdui pits contained 116 collared disks and 58 hoe-shaped objects, which, like the bronze weapons, might have been bronzes that circulated more widely. Sun Hua (2002) has suggested that the hoe-shaped objects might reference agricultural tools, and both forms might have been markers of status, perhaps worn or carried by local community leaders, who came together on occasions like those that resulted in the creation of the two pits. Perhaps it is not a coincidence that the number of disks and flat objects are nearly the same in the two pits. (K1 had 59 collared disks and 33 square-holed objects, while K2 had 57 disks and 25 square-holed objects.) Is it possible that these objects were “fungible,” to some extent (see Renfrew, this volume)? Or maybe they are materialized representations of participation by the same groups on different occasions. These speculations are worth future consideration.

The creation of the two pits, the moment of disposal in the use life of all these bronze objects, involved the intentional destruction of many of the bronzes. Some of the vessels were badly damaged, and most of the singular objects, such as the trees and the human figure, were broken into pieces. It is unclear whether these events were acts of destruction brought about by conflict or, as might be suggested, by the careful layering of materials in K2 and the repetition of the practice, ritualized events of renewal and immolation (Xu Jie 2001b:31). In either case, these single events involved the large-scale “sacrifice” (in the sense of “renunciation,” which Valeri [1994] emphasizes is at the core of sacrificial behavior) of many types of bronze objects in a prominent, and probably public, event. The statues with bronze heads were destroyed, along with scores of bronze weapons, vessels used to store tokens of wealth, other bronze ritual paraphernalia, and objects of value that may have been individual possessions, such as disks and flat objects. Bronzes at Sanxingdui were valued in a variety of different ways, but the termination of many of these different types of bronzes was the same.

Bronzes are less of a monumental component of the assemblage of valuable objects known from Jinsha. Many of the Jinsha bronzes were quite small, including the



most famous piece—a small standing bronze figurine that was probably attached to some other object (Figure 6). Other small bronzes include another small bronze human head and animals, including birds, a water buffalo head, a tiger, and a tapir. Some of these may have been appended to large bronze vessels. Others may have been attached to other, nonbronze objects, as were a series of small decorative bronze objects, including eye-shaped objects, hanging ornaments, and bells.

The bronzes so far discovered at Jinsha contain 12 examples of rectangular bronze plates with rounded corners that appear to be top panels for life-size anthropomorphic heads (Figure 7a). These cover elements were cast separately from the rest of the heads at Sanxingdui, so it is possible that similar heads were present at Jinsha. Another possibility, however, is that these plates actually came from Sanxingdui. A number of bronze heads at Sanxingdui are missing their associated plates (Figure 7b). Perhaps these plates were removed to be recycled, possibly to supplement the hard-to-acquire raw materials needed for bronze production.

Relative to Sanxingdui bronze production, the Jinsha objects published to date suggest much smaller-scale production operations.<sup>6</sup> The producers may not have been as integrated or as closely connected to those who used the bronze objects as were the Sanxingdui casters. Furthermore, some of the Jinsha bronzes may even have been heirlooms produced at Sanxingdui. The bronze plates that seem to have been parts of bronze heads are such examples. Few of the Jinsha bronzes were singular objects that would have lent themselves to accumulating elaborate histories. A small figurine with a sun-shaped (or typhoon-shaped) headdress may be an exception.<sup>7</sup> There is also less evidence in the Jinsha bronzes for a continuum of ranked types, an aspect of object value that is attested to by the series of bronze heads and masks at Sanxingdui.

Finally, based on currently available evidence, the disposal of the Jinsha bronzes seems to have occurred on a smaller, more private scale than at Sanxingdui.<sup>8</sup> This is actually a general statement about the contexts from which valuable objects at the two sites have been found. At Jinsha, the disposal contexts were smaller than either K1 or K2 at Sanxingdui but were densely distributed across the “ritual precinct” at the Meiyuan locus. We return to this point in the discussion.

### *Jade and Stone*

A variety of hard-stone minerals fall under the rubric jade. Those that include some degree of nephrite or jadeite can be called hemijade (Wen and Jing 1992); those that are mineralogically distinct are pseudojades (Middleton and Freestone 1995). In East Asia nephrite was first used to make ornaments, particularly slit earrings that have been found at early Neolithic sites in the Northeast (Zhongguo and Xianggang 2006). In the Sichuan Basin, Sanxingdui provides the earliest evidence for substantial working of raw materials that fall under the hemijade and pseudojade rubrics, including nephrite, turquoise, quartz, limestone, and marble.

Even before the discovery of the sacrificial pits, “pits containing workshop debris—tools, uncut boulders, and partly worked implements—were encountered several times in the area within the walls, suggesting that a thriving stoneworking industry once existed there” (Figure 8; So 2001:153). In fact, the raw materials for the jade objects at both Sanxingdui and Jinsha probably came from the mountainous region to the northwest of the Chengdu Plain, where these resources are available, and some may have come from cobbles in the river courses in the Chengdu Plain itself. In fact, analysis of jades from Jinsha show that they are similar in composition to raw materials collected in Longxi Township in Wenchuan County, northwest of the plain (Chengdu 2006c:18).

At Sanxingdui, pit K1 contained a total of 129 “jade” objects and an additional 70 made of “stone” (Sichuan 1999)—the contrast, in theory, being based primarily on visual inspection of workmanship and fineness of the material, but in reality this distinction is rather arbitrary and is not based on mineralogical examination (see Xu Jie 2001b:29, note 32). The jade/stone objects included “ritual objects” such as *cong* tubes, collared *bi* disks, ritual weapons (labeled as such because they seem too fragile to have been actually used in combat), tools, fragments of raw material, and a variety of forked blades often called *zhang*—which were the single most common object type. Pit K2 contained 17 *zhang*, 31 *ge*-shaped<sup>9</sup> halberds, and 43 chisel-shaped objects, as well as disks, beads, bracelets, a knife, an ax, grinding stones, strings of beads, and raw material.

Some of the finely crafted stone objects might have been imports from jade producers far to the east or north (So 2001). Other objects, including *ge* blades, were clearly based on northern prototypes, even if they were locally produced. Some “jade” objects were clearly produced at Sanxingdui, as evidenced by the raw materials and production tools found at the site. While some objects may have been brought to Sanxingdui as finished products, it is likely that raw materials were also brought in,

mostly from nearby (but not local) sources, and worked at the site by specialist craftspeople into many of the finished objects observed in the pits and other contexts.

Jade and stone objects were accorded high value across ancient East Asia in part because of the luminosity and color of the raw materials from which they were worked. Furthermore, in the case of nephrites and other particularly hard materials, the labor invested in the manufacture of objects would have contributed to their value. Fewer than 6 percent of the objects labeled as jade from Sanxingdui are actually nephrite (Sichuan 1999:500–21; So 2001:154). These may have been items of particularly high value, relative to the other, similar objects at the site. Objects made of softer stone but in the same form as objects made of hemijades drew on the high-value associations of the harder material, but their relative ease of manufacture would have probably situated them at a different value grade. At Sanxingdui, the production of objects out of both hard-to-work luminous jade and rougher stones suggests gradations of value (Figure 9a).

Jade and stone objects that show gradations of value include stone disks and *zhang* blades. Some large stone disks were found in the original cache of objects discovered at the Yuliangwan locus in the 1930s, as well as at Cangbaobao. Although stone disks of that variety do not appear in K1 or K2, these pits do contain jade collared disks/flanged bracelets, which range widely in size. The size and raw material used in these objects were likely significant factors in the values associated with them (Lesure 1999). Collared disks furthermore were made in both stone and bronze, representing two distinct grades of this sort of valuable object (Figure 9b). It is even possible that the bronze collared disks, bronze hoe-shaped objects with square holes, and jade collared disks all acted in similar ways as markers of prestige in the Sichuan region. Stone *zhang* occur in a range of sizes, including some that were very large and some that were quite tiny. The presence of miniature *zhang* reflects the importance of the *zhang* as a symbol of power that was incorporated into ritual activities. Some of these blades would have been further embellished by the addition of gold foil (see below).

Excavations and salvage work at Jinsha have recovered nearly 2,100 objects made of “jade” in addition to more than 700 stone artifacts (Chengdu 2006c:13). In this case, investigators have identified a wide variety of stone raw materials used at the site, with a majority of the jades identified as being primarily nephritic (Yang et al. 2002). The repertoire of stone objects is similar to that found at Sanxingdui, with *zhang* of various forms and *bi* disks being among the most common forms. Other forms include ax-shaped objects; *ge*-shaped objects, long, wide chisel-shaped objects; heads of figures;

rings; and cowrie shell–shaped objects. At Jinsha it is certain that many of these objects were locally made.

Among the products of local manufacture at Jinsha, one group of stone objects that may have been a new product in the Shi'erqiao period is a collection of human and animal figurines from the Meiyuan locus (Figure 10a). In total, at least 28 of these figures have been found at Jinsha (Chengdu 2004a); 10 are human figurines with hands tied behind their backs, and 18 are animal figures. The latter include eight tiger figures, nine snakes, and a turtle. These figurines were made out of different raw materials and are not limited to Jinsha. One is displayed at the Sanxingdui Museum, for example, and although its context is not given, it probably came from deposits at Sanxingdui contemporary with those from Jinsha (Figure 10b). The figurines reinforce the impression that the representation of human and animal forms was valued in Sichuan to a degree not seen elsewhere in Bronze Age China.

In many ways, the assemblage of jades and stone objects from Jinsha is very similar to that from Sanxingdui. Aspects of labor investment, producer identity, divisibility, and gradations of value as represented by continua of ranked types are not qualitatively different. The gradations of value suggested by the collared jade and bronze disks, for example, are also evident at Jinsha. It does seem, however, that variability of quality is more pronounced in several categories of stone objects at Jinsha. There are more examples of *zhang* made of poor-quality stone at Jinsha than at Sanxingdui, for example. Perhaps this reflects differences between the large-scale pits at Sanxingdui and the small-scale deposits at Jinsha. Differences in *cong* tubes, however, suggest that the Jinsha pits did not always contain lower-quality stone objects. *Cong* are based on a form that has its roots in the Lower Yangzi River valley in the Liangzhu culture (Chang 1989; Hayashi 1990; Sun 1993). The one *cong* discovered at Sanxingdui (K1:11-2) was a short, undecorated example made of a coarse stone, but 12 *cong* have been discovered at Jinsha, and they range widely in size and raw materials. The largest is 22.2 cm long and has 10 registers of decoration, while others are as short as 2.6 cm tall. They are made from stones of a variety of colors, possibly mostly of local manufacture yet drawing on symbolism that reflects connections with distant places and times.

As noted in the discussion of the bronze above, the disposal of jades at Jinsha was dispersed among many individual episodes, possibly the remnants of rituals that were smaller in scale and more private than those represented by the Sanxingdui pits. Many of the published objects from the Meiyuan locus were not found in situ, but

subsequent excavations have revealed large numbers of small deposits, including clusters of jade objects. The final loci of disposal represent a very different use of valuable objects from that reported at Sanxingdui.

### *Gold*

Gold was not a common medium used in the creation of valuable objects in the Central Plains and surrounding areas of China until the middle of the second millennium B.C. In northern peripheral regions, gold was used for personal ornaments during the second millennium (Turner 1996), but the use of gold at Sanxingdui and Jinsha is unprecedented.

Gold is available around the Sichuan Basin in rivers that tumble out of the highlands to the west (e.g., Ji et al. 1997). Large gold placer deposits are found north and east of the Chengdu Plain in the “gold triangle” where Sichuan, Gansu, and Shaanxi converge (Zhou et al. 2002). The producers of the gold objects found at Sanxingdui and Jinsha almost certainly made use of these relatively local gold sources. Where exactly the objects were made and in what fashion the gold was brought to these manufacturing loci is completely unknown at present.

At Sanxingdui 4 gold objects were discovered in K1 and 70 in K2. The K1 pit included an unidentifiable gold foil object, a gold foil mask (Figure 11a), a small tiger-shaped gold foil object, and a gold foil skin used to encase a staff and decorated with a design featuring four fish impaled by spears, four birds, and two faces with crowns (Figure 11d). K2 contained two masks, a foil crown-shaped object with four peaks, 14 gold foils that would have covered miniature stone *zhang*, 19 fish-shaped gold foils, and 30 fragments, in addition to four gold foil masks used to cover the faces of bronze heads.

The gold objects were all made by hammering to make thin foil, which was then applied to other objects such as stone *zhang*, a wooden staff, and bronze heads. The gold was therefore a superficial embellishment that added a layer of distinction to certain objects, perhaps enhancing their value relative to other similar items. This process of embellishment has been called transmutation in other contexts, such as when gold was added to stone axes in the Balkans (Renfrew, this volume) or the “gilding of people” in the Moche world (Donnan, this volume). In the Chengdu Plain, gold was mechanically attached and therefore not made as an essential part of the objects. This situation

contrasts with other prehistoric contexts where the value of gold was made evident by fusing the gold with other metals (Lechtman 1984c).

The presence of gold foil on only four of the bronze masks (Figure 11b) might indicate that gold on other masks was removed prior to burial, perhaps to be reused on other objects, although it may also indicate that gold was used for the sort of transmogrification that would distinguish certain heads from others. Several heads that did not have gold preserved on them may have been covered in antiquity, but some certainly were not. Gold was thus a means to enhance further gradations of value among the objects used in ritual at Sanxingdui.

At Jinsha a variety of gold objects have been found, including a gold band that may have been a crown; gold straps 22 cm long; a small gold face; decorative gold foil objects such as frog-shaped objects, a triangular object, a fish-shaped item, and a band that may have fitted along the rim of some other item; a trumpet-shaped object that would have been fitted to a similarly shaped bronze item; a gold mask similar to the one found at Sanxingdui (Figure 11c), and a famous gold foil “sun disk” (“typhoon disk”?) with four birds that is now the national symbol of cultural heritage in China. The possible crown band had the same motif on it as the shaft sheath from Sanxingdui, strongly suggesting that these objects share a particular symbolic significance (Figure 11d).

The gold foil objects at Jinsha were all between 0.1 and 0.4 mm thick and were heated during their production (Xiao Lin et al. 2004). They ranged from 83.2 to 94.2 percent gold, with other metal content comprising copper and silver. The variability in the elemental composition of these objects suggests that these were naturally occurring alloys. Again, the labor involved in producing these objects need not have been particularly specialized.

The gold objects seem to have been abandoned as individual items in the sacrificial zone at Meiyuan. Both the gold sun disk and the gold mask, for example, were found in situ in otherwise unremarkable contexts in the sacrificial zone. Gold, therefore, follows a pattern similar to bronze and jade in terms of final contexts of deposition, wherein the Jinsha pattern of sacrificial discard seems smaller scale relative to the pits from Sanxingdui.

### *Ivory*

The exploitation of elephant tusks has great antiquity in East Asia, with evidence

stretching back into the Paleolithic at Pan Xian Dadong, for example (Schepartz et al. 2005). Neolithic sites also contain evidence for elephant exploitation (Shelach 2000; Underhill 1997; Zhejiang 2003), and elephants were more ubiquitous in the last couple millennia B.C. than more recently (Elvin 2004; Fiskesjö 1990). Elephants were present in the Central Plains during the era contemporary with Sanxingdui, and elephant ivory was used to create elaborate, highly valued objects at Anyang, such as a turquoise-inlaid ivory cup discovered in the tomb of Fu Hao (Karlgrén 1964; Zhongguo 1980). Ivory obtained at least some of its value from its association with the hunt, a practice that held particularly strong political significance in the Central Plains during the Bronze Age (Fiskesjö 2001).

In Sichuan, elephant tusks have been found at both Sanxingdui and Jinsha. Elephants were almost certainly local to the area during the Sanxingdui period, only having disappeared more recently (Elvin 2004; Jiang Yuxiang 1993). Although it is possible that elephants were domesticated (or tamed), there is no evidence, zooarchaeological or iconographic, that would support this. Instead, the elephants were probably wild and the area around Chengdu from which these tusk specimens came was probably quite large. In modern populations, female Asiatic elephants typically lack tusks, so we can presume that the dozens of elephants represented by the finds in the Sanxingdui sacrificial pits and at Jinsha (as well as finds at other loci at Sanxingdui, such as the burials at Rengshengcun) were all male. Adult male elephants tend to be solitary, and it is unlikely that the tusks all came from one or two herds. It is more probable that elephants were killed across the Chengdu Plain and that the tusks from Sanxingdui and Jinsha represent a form of tribute that traveled into the sites from scattered communities.

The elephant remains at Sanxingdui are primarily tusks, with few postcranial elephant bones reported. In fact, the brief report mentions no confirmed postcranial bones that were large enough to be from pachyderms. Elephant tusks have been found in several contexts, including the burial area at Renshengcun (Sichuan 2004; Song 2005) and the sacrificial pits (Jiang Yuxiang 1993; Sichuan 1999). Together the two ritual pits contained at least 80 elephant tusks—13 in K1 and 67 (and an additional four fragmentary tusks) in K2—representing at least 40 elephants. A few smaller items were made out of elephant ivory, including a couple of decorated fragments, but most tusks were left in their natural form, sometimes split into sections. In Renshengcun, for example, burials with ivory contain segmented tusks. In the sacrificial pits, however, the tusks were complete. These tusks may have been displayed in conjunction with the

bronze human figures found in the sacrificial pits—perhaps even in the hands of figures such as the life-size bronze sculpture, since it has appropriately sized holes in its hands (Figure 4).

Ivory would have been valued as a token of the integration of the various communities that brought tusks into Sanxingdui and as a symbol of dominion over both the natural world, represented by elephants, and the people who brought in the tusks. The procurers were possibly members of communities dispersed across the plain that took part in ritual activities at Sanxingdui. The tusks were cached. Sometimes they were divided and used in burial contexts (such as at Renshengcun). Some were prominently displayed in rituals when the bronze figures found in K1 and K2 were on display. Like the disposal of other objects discussed above, the disposal of many tusks was likely part of elaborate public rituals—although it is possible that some were stored for redistribution or later ritual use.

In the case of Jinsha pit K1 at the Meiyuan locus, at least a dozen elephant tusks were found neatly placed together. The longest of these measured to date is 1.5 m. These were complete tusks and may have been deposited either as a cache or as some form of public sacrificial ritual. As was the case with Sanxingdui, no postcranial elephant elements have been reported from these loci, and it is likely that the tusks were brought into Jinsha from dispersed communities.

To date, more than 100 elephant tusks have been found across the entire sacrificial zone at Jinsha (Chengdu 2006:37a). These include both complete tusks, such as those found in Jinsha K1, and many examples of tusk segments, found in small groups (Figure 12). The tusk segments and slices may indicate that tusk value was partible and divisible. The tusks and tusk fragments join a host of other faunal remains that seem to have been intentionally deposited along the banks of the Modi River. In one area, for example, a large number of boar teeth and deer antlers were discovered densely distributed along one bank of the river (Figure 13). Specific animal parts were collected and used as valuable objects in rituals at Jinsha.

Not all objects of bronze, jade, gold, and ivory were equally valued; nor are these the only media of value. Other valuable objects could be considered as well. Among these we have already mentioned cowrie shells—particularly because they were found in abundance in several vessels and heads discovered in the Sanxingdui pits. It is worth noting that imitation cowries were discovered at both Sanxingdui (a turquoise cowrie-shaped bead K2[3]:12) and Jinsha, where a hemijade cowrie shell was found (Figure 14).



These imitations suggest that cowries were involved in the creation of gradations of value.

### **Discussion: Changing Object Values**

Given the data from Sanxingdui and Jinsha presented above, what difference can be observed in production, use, and disposal of valuable objects made of bronze, jade, gold, and ivory? What do such differences tell us about shifts in political aspects of society during the period when the center of power in the Chengdu Plain seems to have shifted from the Guanghan area to the region of Chengdu? My impressionistic answers to these questions provide fertile ground for future research.

#### *Production*

Differences in production may involve changes in the nature of raw material acquisition, the identity of producers, labor invested in manufacture, and gradations of value apparent in products (see Figure 3).

No definitive differences in the nature of raw material acquisition at Sanxingdui and Jinsha are apparent—at least as far as the current data show. This is generally true for materials used to create bronze, jade, gold, and ivory objects. Lead and tin were acquired from great distances, and copper may have been as well, while jade, gold, and ivory were all relatively local—won from the mountains surrounding the plain in the case of jade and gold and from elephants in the plain itself in the case of ivory. Whereas the acquisition of materials for bronze production speaks to the importance of access to long-distance trade routes, and the procurement of jade, gold, and ivory speaks to the integration of communities spread around the plain and surrounding areas, there was little significant change over time.

One possible change concerns access to long-distance resources. There is considerably less bronze present at Jinsha, at least in discoveries up to the present. Although the Jinsha bronzes are distributed among a larger number of individual deposition episodes, the scale of bronze production is apparently quite different. Also, other objects necessarily obtained from distant sources, including cowrie shells, are more numerous at Sanxingdui than at Jinsha. Furthermore, the presence at Jinsha of plates from the tops of heads, but the absence of heads, might suggest that some

bronzes were recycled at Jinsha, perhaps because raw material was scarcer. These impressions suggest that Jinsha elites may have had somewhat less control over or access to long-distance trade networks than their predecessors at Sanxingdui. This is not to say long-distance exchange elsewhere stopped or diminished, but the Chengdu Plain seems less involved. Nevertheless, long-distance connections were still symbolized. The replication of stone *cong*, for example, drew on a distant symbolism in the production of valuable objects.

Little evidence speaks explicitly to the identity of the producers of these objects of value. They may be loosely identified as “attached specialists” (Costin 1991), at least those involved in bronze, jade, and gold production, although this category encompasses quite a few qualitatively different social identities (Flad 2007). At least some of the producers of bronze at Sanxingdui were clearly skilled craftspeople who understood how to construct mold–model assemblages, cast on various pieces, and alloy metals effectively (Xu 2001a). Gold production, however, did not require a high degree of technological sophistication—although the fact that it was clearly practiced together with bronze production at both Sanxingdui and Jinsha speaks to the intimate relationship between these producers. They may even have been the same people engaging in a multicraft production process (Stark 2007).

Stone and jade production would have involved both a considerable amount of artistic skill, in the case of objects that were elaborately decorated, and a fair amount of labor investment. At Sanxingdui, miniature *zhang*, as well as huge stone blades, suggest that size mattered in the display of valuable objects but also that a tiny stone object of a certain form could draw on a shared symbolism of value. The specimens at Jinsha included more low-quality stone used to make objects that symbolized social power (such as *zhang*) but also very fine, translucent materials. This variability shows a more intentional use of gradations of value by stone workers in their production processes, perhaps indicating a conscious attempt to make certain symbols of prestige available to a larger group of individuals while maintaining levels of distinction.

Both Sanxingdui and Jinsha show evidence of gold objects being produced to add further distinctiveness to certain bronze and stone items through transmogrification. In the case of Sanxingdui, gold was used to more dramatic effect in the embellishment of bronze and jade items. In cases such as the gold crown, gold objects at Jinsha may have been objects of value in their own right.

## Use

The remains from Sanxingdui and Jinsha also reflect a few differences in aspects of object use that relate to regimes of value: the identity of users, the commodifiability and divisibility of objects, and their capacity to accumulate history.

Although there is little evidence that speaks clearly to the identity of those who used these objects during their period of circulation, the apparent increase in gradations of value among jades might reflect an increase in the population of individuals who had access to jade and stone objects as prestige items.

Some of the more generic bronze and jade items, such as the collared disks and objects with rectangular holes, may have been commodifiable but were more likely exchanged as gifts that established and maintained social ties despite their rather generic forms. Among the most interesting evidence of the manipulation of object value during use life was the cutting of elephant tusks into segments. Presumably partial tusks would have been valued quite differently than whole ones.

Singular items typically have a greater capacity to accumulate history. The bronze sculptures and trees at Sanxingdui are good examples of singular objects. They may not have accumulated much in the way of history beyond their role in particular ritual occasions, however. The bronze heads and masks were stylized and idealized, and several of each type may have been cast from an identical set of molds. They too would have served very specific ritual purposes, probably in the context of public display.

Objects that circulated, in contrast, would have had more complex stories to tell. The bronze *lei* and *zun* vessels, for example, would have been valued as much for their specific associations with people and events responsible for their acquisition as for their generic association with distant places. Similarly, the large jade *zhang* blades would have had a “capacity to tell stories” related to their history of circulation and the associated potential for social “enchainment” (Strathern 1988). The large *zhang*, more easily than the bronze heads, may have linked together people and places outside the Sanxingdui site, perhaps places farther to the north (So 2001). Based on analyses of both bronze and stone objects, extensive and varied connections between the Chengdu Plain and other regions have been proposed (So 2008; von Falkenhausen 2006).

At Jinsha, few bronze objects have the singular nature of those from Sanxingdui. Instead, the capacity to accumulate history was vested in high-quality jades, gold items (such as the sun-disk and the crown), and elephant tusks. The divisibility (or

fragmentation)<sup>10</sup> of the tusks would have contributed to this capacity—as the tusks were altered, their stories would have been as well.

### *Deposition*

Perhaps the biggest difference in the use lives of valuable objects at Sanxingdui and Jinsha relates to the known contexts of final deposition. At Sanxingdui, ritual pits such as K1, K2, and possibly the pits at Cangbaobao and Yueliangwan seem to have been the remnants of public, ritualized abandonment of objects.<sup>11</sup> These rituals may have been conducted in the context of more elaborate communal events—perhaps with individuals from many communities contributing to the material to be destroyed or perhaps competitive displays of destruction and conspicuous consumption.

In contrast, the Jinsha remains suggest a different scale of ritual event, with a different sort of participation and consequently a different set of values associated with the destruction of the bronze, jade, gold, and ivory objects that have been discovered. The sacrificial zone at Meiyuan was probably used continuously over a long period of time by individuals or small groups in private, ritual practices. This contrasts sharply with the situation at Sanxingdui and represents a political order that is less centralized, perhaps more administratively complex, and more open to negotiation of social roles. The people who lived and interacted in and around the Jinsha site cluster were possibly part of a community in which valuable objects made of bronze, jade, gold, and ivory were not concentrated into a few hands but instead were spread more widely and unevenly.

These observations serve only as a starting point, as it is quite possible, even probable, that other changes affected regimes of value in the Chengdu Plain during this period of transition.<sup>12</sup> For example, changes in the specific sources from which raw materials for bronze production were acquired would have impacted value systems in the region in numerous ways. Therefore, we must continue to pursue data that further illuminate the production, use, and disposal of valuable objects.

### **Acknowledgements**

I thank the organizers of the conference on which this volume is based—Gary Urton and John Papadopoulos—for including me in what proved to be a stimulating weekend in

Los Angeles. I appreciate the feedback I received on the paper at the conference, particularly from John Chapman and Elizabeth Carter, as well as comments on versions of this paper from Lothar von Falkenhausen, Joshua Wright, Pochan Chen, Jenny So, TzeHuey Chiou-Peng, and Francis Allard. Mistakes and omissions remain my own responsibility.

### **Figure captions**

Figure 1. Locations of sites mentioned in the text, including the nine known Baodun culture walled sites (\*), Pi Xian Gucheng (1), Sanxingdui (2), and Jinsha (3) (map by the author).

Figure 2a. The Sanxingdui site showing locations for Yueliangwan (1), Cangbaobao (2), K1 and K2 (3), the Rensheng cemetery (4), and the enclosure wall (map redrawn after Xu 2001b:24).

Figure 2b. The Jinsha archaeological district showing locations for the Meiyuan locus (a) and the Modi River (map redrawn after Chengdu 2006a:6).

Figure 3. Attributes associated with production, use, and discard that can be used to study object value.

Figure 4. Bronze figure from Sanxingdui (K2[2]:149, 150) (photo after Xu 2001a:73).

Figure 5. Bronze collared disk (a); bronze hoe-shaped object with square hole from Jinsha (b) (photos by the author).

Figure 6. Small bronze figurine from Jinsha (photo by the author).

Figure 7. Bronze plates from Jinsha (a); head with missing bronze plate from Sanxingdui (b) (photos by the author).

Figure 8. Block of jade raw material found on the bank of the Yazi River, north of the Sanxingdui site (photo by the author).

Figure 9. *Zhang* blades made of rough stone (left) and tremolitic jade (right) from Sanxingdui (approximately one-quarter actual size) (a). Collared disks made of tremolitic jade (top) and bronze (bottom) from Jinsha (b) (photos by the author).

Figure 10. Stone figurines from Jinsha (a). Stone figurine at the Sanxingdui Museum (b) (photos by the author).

Figure 11. Gold mask from Sanxingdui (K1:282) (a); gold covering on a bronze head at Sanxingdui (K2[2]:45) (b); gold mask from Jinsha pit K8 (c); bird and arrow motifs on the Sanxingdui gold shaft sheath (top) and the Jinsha gold crown (bottom) (d) (photos by the author. Line drawings after Sichuan 1999:61 and Chengdu 2006a:29).

Figure 12. Tusk segments found at Jinsha (photo by the author).

Figure 13. Boar teeth and antlers deposited along the Modi River (photo by the author).

Figure 14. Imitation cowrie shell discovered at Jinsha (photo by the author).

Table 1. Contents of the Ritual Deposits at Sanxingdui (K1 and K2) and Jinsha (Meiyuan) Discussed in This Paper.

<b>K1</b>	<b>K2</b>	<b>Initial Meiyuan Deposits</b>
13 anthropomorphic bronze heads	44 bronze heads; 20 human masks; nine animal masks; one bronze figure	479 bronze objects (weapons, bells, disks, various decorative attachments, small human figurine)
44 bronze weapons	17 bronze weapons	
121 other bronze objects	360 other bronze objects (including a tree; 20 bronze vessels)	
166 jade and stone items	486 stone and jade items	558 “jades”; 248 stone objects
	61 gold objects	56 gold objects (mostly

		decorative attachments)
13 elephant tusks	67 elephant tusks (plus four fragmentary tusks; 120 ivory beads)	32-plus elephant tusks
124 cowry shells; ash of burned animal bones, wood, and bamboo	4600-plus cowry shells	57 pieces of worked bone
40 pottery vessels		18 pottery objects

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### Notes

<sup>1</sup> It should be stressed that the absolute chronology of this culture has not been thoroughly worked out in the published material.

<sup>2</sup> An extensive summary of this location and early excavations is Zhu et al. 2006. Previous research at the Huangzhongcun locus, which is now associated with the Jinsha site, took place starting in 1995 (Chengdu 2001).

<sup>3</sup> One *bi* disk-shaped bronze object (2001CQJC:924) discovered at Jinsha was made of an alloy of bronze, tin, and arsenic. Arsenical bronze is known from the second-millennium site of Donghuishan in Minle, Gansu (Gansu and Jilin 1998), but it is rare in Sichuan. This object may have been an import (Xiao et al. 2004).

<sup>4</sup> The Middle Yangzi sources in eastern Hubei are known to have been exploited in antiquity (Xia and Yin 1982). Other, closer, substantial known copper sources in East Asia include mines in the Three Gorges on the eastern side of the Sichuan Basin, in western Tibet, and in mountains south of the Sichuan Basin near the border of Sichuan and Yunnan, all between 500 and 600 km from the Chengdu Plain (see [www.mindat.org](http://www.mindat.org)). More modest sources are in the Qinling Mountains to the north of the Sichuan Basin and in southern Sichuan near Jiulong (Zhu Xun 1999:188). The latter mines are between 200 and 300 km from Sanxingdui and Jinsha. None of these mines have documented exploitation during the Bronze Age.

<sup>5</sup> Jenny F. So (personal communication March 2010) notes: “These flanged bracelets reveal another connection with Yunnan in the late 1st mill. BC. Bronze representational

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plaques from Shizhaishan and related sites show ritual dancers and hunters wearing wide-flanged bracelets. Graves as far as northern Thailand show buried persons wearing these flanged bracelets. The bronze versions at Sanxingdui were probably made as less valuable substitutes for rarer jade versions to meet local demands.”

<sup>6</sup> It must be stressed that the scale of bronze production at Sanxingdui would also seem meager if not for the discovery of the two large pits (K1 and K2). Some of our conclusions will require reevaluation if similar pits are discovered at Jinsha.

<sup>7</sup> In the present day, this figurine certainly has been subjected to a great deal of interpretation, particularly focused on the possibility that it represents a specific deity.

<sup>8</sup> Given the lack of comprehensive publication, it is not clear whether more small-scale sacrificial contexts, such as the Yueliangwan pit mentioned above, may exist at Sanxingdui. To date, there is no mention of such contexts in any publications or discussions of the site, or at the site museum.

<sup>9</sup> *Ge* are traditional halberds that vary slightly in form both chronologically and spatially but are a consistent component of weaponry throughout the Bronze Age.

<sup>10</sup> On the interpretation of meaningful fragmentation in archaeological contexts, see Chapman 2000a and Chapman and Gaydarska 2006, 2009.

<sup>11</sup> Additional, potentially complementary functions also exist. At the conference that gave rise to this volume, Elizabeth Carter suggested that deposition in pits may have functioned to take certain objects out of circulation, thereby preserving the high value of certain scarce materials. If this were the case, perhaps the pits were storehouses of wealth, accessed when necessary—with the elephant tusks being reused and the bronze melted down for new bronzes.

<sup>12</sup> It is important to note that archaeological discoveries from both Jinsha and Sanxingdui have not yet been fully published, and other data may affect our interpretations of the differences between these two sites.